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ABSTRACT

As the first phase of a 2-phase cost study at the University of Toronto, a survey was made of the weekly distribution of time of full-time academic staff in 1966-67. This report presents the results gathered from 719 respondents to a questionnaire. For the purposes of the study, time distribution was divided into undergraduate instruction, graduate instruction, graduate supervision, university research, assisted research, reading and study, administration, student services, public services, and "other professional activities." Academic staff was divided into the categories of: full professors, associate professors; instructors, department heads, and associate deans. The report gives the weekly time distribution of each of the academic ranks in each area both for the summer session and regular academic year. An analysis of the more significant results shows that 82% of the professors' time was devoted to strictly academic activities, and that the average annual unit cost of graduate students was about 4 times that of undergraduates. A time-profile of the average professor is formed and some "important" academic workload standards are proposed. Tables and graphs illustrate the discussion. (DS)





# University of Toronto

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REPORT ON A STUDY OF FACULTY ACTIVITIES AT THE UNIVERSITY OF TORONTO

by

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OFFICE OF INSTITUTIONAL RESEARCH

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### REPORT ON A STUDY OF FACULTY ACTIVITIES AT THE UNIVERSITY OF TORONTO 1966-1967

SUMMARY

A study of a survey and analysis of the distribution of time of full-time academic staff at the University of Toronto is reported. The method of study is presented followed by a discussion of the analysis of the data and the types of reports that are prepared to display information for university decision-makers. A time-profile of the average professor is formed and some important academic workload standards are proposed for consideration.

### Introduction

Early in 1967 a detailed cost study at all Canadian universities was begun. The study was initiated by the Association of Universities and Colleges of Canada in co-sponsorship with the Canadian Association of University Teachers and the Canadian Association of University Business Officers for the purpose of gaining accurate, up-to-date information about the actual distribution of costs among the various programmes which make up the operations of Canadian universities. The reasons for undertaking a cost study on such a grand scale are manifold.

For one, government is supporting increasingly greater shares of the cost of university education (close to 80% of operating costs of Ontario universities in 1967) and it wants to know how the money is distributed and what output is as a result of it.

For another, in the interest of equitable distribution of operating grants to universities, the trend is toward financing by formula. Financing formulae generally work on the principle that some courses of study are more costly to conduct than others - thus



different weights which represent these different costs are applied to the different courses of study. In order to develop representative weights it is necessary to develop the costs. At this time provincial governments in Canada are immensely interested in financing by formula and the Province of Ontario has already adopted an operating grants formula which is receiving world-wide attention.

A third, and equally important reason is that the universities themselves obtain information which will enable them to see costs in the programme dimension in addition to the traditional breakdown of costs by expenditure classifications within the various academic departments and administrative divisions of the university. Thus, they are able to make better decisions about where resources ought to be allocated to achieve the goals of the university.

## Planning the Study

The study is taking place in two phases. The first phase is concerned with a time-measurement of the activities of full-time and part-time academic staff. Taken together these two categories represent over 50% of the operating cost of a university. A second phase of the study is concerned with collecting data on other direct costs and allocating indirect costs of administration, plant maintenance, library, etc., at the appropriate programme level. It is the results and conclusions of this first phase of the study specifically directed toward the analysis of the activities of full-time staff that we are reporting in this paper.

A format for a questionnaire to obtain time distribution information was suggested by AUCC. Each university was also asked



A committee was appointed at the University of Toronto with the Provost as chairman and with the other members being the Research Assistant to the President, the Directors of Finance and Institutional Research, the Chairman of the Department of Electrical Engineering, and a senior professor from the School of Business.

From the inception of the study the Committee recognized several limitations to the questionnaire approach to collecting data on the distribution of time to academic activities. Most important, the measurement device is seriously deficient. For one example, the questionnaire asks the faculty member to estimate the number of hours he spends on research. Unless he holds a stop watch on himself, which is unlikely to say the least, any estimate he gives is going to be subject to a considerable range of error. A second deficiency is the inherent nature of the questionnaire itself. The academic values his freedom in academic matters above all other things associated with his professional life. The temptation to bias a study which attempts to measure his time when to him time is far down on the list in importance is very great - the completed questionnaires may contain considerable amounts of such bias or he may simply fill in values pretty much at random. And then there is non-response. Academic staff are plagued continually with requests to fill out questionnaires. The questionnaire may simply be ignored no matter how urgent the plea for cooperation and then the interpreter is forced to work with a sample.

In our case we had close to a 60% return which we considered to be pretty good under the circumstances. We did not make completion mandatory. We felt that we would rather work with an unbiased sample than with a "forced" 100% return which would contain a substantial degree of bias. Also, we had our questionnaire approved by the local committee of the Association of Teaching Staff. Indeed the President of the Association of Teaching Staff sent along an indorsing letter, urging cooperation, with the questionnaire to each faculty member.

We altered the AUCC questionnaire in some respects to make the information machine-processable and to yield other information important to our own institutional research. At Toronto we are developing a simulation model of the University which will allow us to forecast the resources (funds, people, space) that will be necessary to care for increased enrolments, particularly in the graduate sector, and different mixes of enrolment. And, it will also enable us to simulate the effects of different patterns of action so that we may select a preferred alternative from a number of them. The model is modular in construction with one of the modules concerned with allocation of personnel to meet the demands of enrolment in the various courses of study. The activity study is essential to our development of this module. In addition it provides other valuable research information on the institution.

The cost study questionnaire adapted from the AUCC model was subdivided into six sections: (1) a statement of purpose and instructions, (2) appointment information, (3) hours per week



YEAR 1 YEAR 2 YEAR 3 YEAR 4 YEAR 5 GRADUATE	FULL PROFESSOR 0.029 0.043 0.063 0.059		ASSISTANT PROFESSOR	
YEAR 2 YEAR 3 YEAR 4 YEAR 5	FULL PROFESSOR 0.029 0.043 0.063	ASSOCIATE PROFESSOR  0.057 0.071	ASSISTANT PROFESSOR	
YEAR 2 YEAR 3 YEAR 4 YEAR 5	PROFESSOR 0.029 0.043 (.063	PROFESSOR 0.057 0.071	PROFESSOR	LECTU
YEAR 2 YEAR 3 YEAR 4 YEAR 5	0.029 0.043 63	0.057 0.071		
YEAR 2 YEAR 3 YEAR 4 YEAR 5	0 • 043 √ • 063	0.071	0.079	
YEAR 3 YEAR 4 YEAR 5	√ . 063	· · -		C. 1
YEAR 4 YEAR 5	· ·	1, MAQ	0.087	0.1
YEAR 5	<b>⊍•</b> 1159	<b>₩</b> • ₩ 0 7	0.075	0.0
		ë•0 <b>7</b> 8	0.061	C.C
GRADUATE	0.001	0.000	0.000	0.0
	<u>0.133</u>	0.10C	0.123	0.0
D I DA CIMA	<b>じ∙</b> む3	9.011	0.002	0.0
DIPLOMA		0.054	9.046	0.0
MASTERS PHD	0.044 0.071	0.062	0.027	0.0
Pho	0 643 7 1	0.402	U • \( \lambda \) \( \alpha \) \( \bar{\alpha} \)	
	0.015	0.017	0.020	<b>0.</b> ن
•	U.078	0.088	0.078	0.1
UNIVERSITY	0.144	0.134	0.135	0.1
ASSISTED	0.105	0.105	0.114	0.0
FACULTY	ŭ.027	0.022	0.038	0.0
DEPAR TMENT	0.076	0.052	0.048	0.0
SGS .	L.011	0.008	0.005	0.0
IG	<b>0.027</b>	<b>5.</b> 018	0.025	0.0
			0.006	0.0
S				0.0
				0.0
		3.008	0.008	0.0
•	0.506	0.010	0.002	0.0
AMALAIT C	1 02	1 07	150	81
	FACULTY DEPARTMENT SGS G NISTRATION S OUPS	FACULTY DEPARTMENT 0.076  SGS 0.027  0.027  0.027  NISTRATION 0.006  S 0.003  OUPS 0.041 0.015 0.006	FACULTY 0.027 0.022 DEPARTMENT 0.076 0.052 SGS 0.011 0.008  G 0.027 0.018 NISTRATION 0.006 0.005 S 0.003 0.008  OUPS 0.041 0.023 0.015 0.008 0.006 0.010	FACULTY 0.027 0.022 0.038 DEPARTMENT 0.076 0.052 0.048 SGS 0.011 0.008 0.005  G 0.027 0.018 0.025 NISTRATION 0.006 0.005 0.006 S 0.003 0.008 0.004  DUPS 0.041 0.023 0.021 0.015 0.008 0.008 0.008 0.008 0.008 0.008

THE AVERAGE NUMBER OF YEARS ON FACULTY 9 UNIVERSITY TEACHING 12

- V 06 1	5 <b>-</b>				
	TORONTO ITIES 1966-	-67			FIGURE 1
TANT SSOR	LECTURER.	HEAD OF DEPARTMENT	ASSOCIATE DEAN	TOTAL	· ,
79	C.134	0.013	0.029	0.056	
37	0.121	0.023	0.017	0.065	
75	0.089	0.018	U.018	0.064	
51	C.162	0.320	0.047	0.661	
<b>ទី</b> ភ	0.000	0.000	0.000	0.000	
20	0.094	0.071	0.062	0.109	
02	6.663	0.004	6 664	.100	
	0.002	0.004	0.000	0.005	
16 27	0.018	0.027	0.014	0.042	
	0.002	0.051	0.020	C-049	
20	<b>0.</b> 012	0.010	0.010	0.016	
78	0.116	0.037	0.048	0.079	
			00040		and the second s
5	0.154	0.081	0.030	0.130	·
4	0.076	0.044	0.043	C.096	· · · · · · · · · · · · · · · · · · ·
	0 407				en de la companya de
8	0.027	0.198	0.153	0.048	
8 5	0.035	0.211	0.198	0.076	
	0.000	0.035	0.073	0.012	
5	0.021	0.037	0.105	0.027	The second secon
5	0.004	0.045	0.055	11 114	· · · · · · · · · · · · · · · · · · ·
4	0.014	0.013	0.031	0.011	•
1	0.009	0.031	0.031	0.007	
8	0.008	0.022	0.016	0.027	,
8 2	0.003	0.009	0.000	0.012	The second secon
	~ ~ ~ ~ <i>~</i>	<b>3.00</b> × 1		0.000	•
					,
	81	61	24	715	
. •					

ACHING 12

devoted to instruction of students in lecture, laboratory or clinic, seminar, and tutorials and the related weekly and non-recurring preparation hours associated with instruction, (4) hours per week devoted to graduate supervision by degree and subject field and any non-recurring hours, (5) hours per week in assisted and university research, graduate colloquia and seminars, and general reading and study, and (6) hours per week in various administration, student advising, student services, work with professional and interuniversity groups and unremunerated public service. It featured an inductive approach to the building of a work week from the parts rather than a percentage breakdown of the whole. We believe that this approach went at least part of the way toward elimination of uncertainty and bias.

## Analysis of the Data

We developed a programme of instructions for our IBM 7094

Computer which enabled us to perform all the calculations and display information on professorial activities in the most meaningful way. The instruction program was written so that information could be aggregated at the university level, at the faculty level, or at the department level depending on the need to know. The university level report is covered in some detail to show the kinds of information that are displayed and how this information may be used in making academic manpower and workload decisions. Division and department level information, not shown here, is presented in exactly the same format so that the same kind of analysis can be performed at these levels also.



There was a total of 719 respondents to the questionnaire with their results aggregated for the entire university in the pattern of Figure 1. This was the report we prepared in exactly the format prescribed by AUCC. About 82% of professors' time is devoted to academic activities - the other 18% to administration and student services of a non-academic nature. Another significant ratio is the ratio of graduate to undergraduate time in instruction and supervision. The ratio shown here is 21/25 or about .84. Since most research is associated with the graduate programmes it is evident that in the aggregate at least half the professional time, and probably more, of professors at the University of Toronto is taken up with graduate work of some kind. This is not significant in itself but when the undergraduate/graduate student mix is taken into account it becomes important. About 20% of the student population at the University of Toronto is registered in the graduate school. Thus, about half the academic resources are devoted to one fifth of the students. Expressed in a different way, the weight which would reflect the cost of a graduate student at the University of Toronto should be about 4 times the weight assigned to an undergraduate. Expressed in yet another way, if the average annual unit cost of an undergraduate is \$1,000, the unit cost of a graduate is \$4,000.

Figure 2 presents the essential information of Figure 1 graphically. The last two activities on Figure 2 represent non-academic activities which take up the time of the professor. Since the data include the time of department chairmen and associate

Figure 2	AVERAGE ACTIVITY TIME DISTRIBUTION FOR FULL-TIME ACADEMIC STAFF OF THE UNIVERSITY OF TORONTO
ACTIVITIES	
UNDERGRADUATE INSTRUCTION -	
GRADUATE INSTRUCTION	
GRADUATE SUPERVISION	
UNIVERSITY RESEARCH	
ASSISTED RESEARCH	
READING AND STUDY	
OTHER PROFESSIONAL ACTIVITIES	
ADMINISTRATION	
STUDENT SERVICES	
	25 de 25 de 30 de
	PERCENT OF TIME

ERIC Prull Taxt Provided by ERIC

deans this is not an unreasonably high figure. In fact we were quite pleased that it showed up as low as it did.

Figure 3 is the first page of a four page computer-output report designed to display information important to the CAMPUS model and to university-level decision-makers. We excluded quite a bit of non-representative data in this report so only the responses of 519 professors were considered. (Limits were set at a 30-70 hour annual work week which eliminated many cross-appointed personnel and about 5% of the replies which were non-representative.) This part of the report displays for each academic rank and for each year the contact hours for lecture, laboratory and tutorial courses with associated weekly and non-repetitive (NR) preparation hours. The ratio of weekly preparation hours to contact hours is then formed. This is an important loading factor and, if the university average were considered acceptable, a loading factor of 2 preparation hours/contact hour could conceivably be established as a standard for loading purposes. Of course, we have only used this as an example. This ratio will vary from department to department and from rank to rank, as will the other data, and these variations should be taken into account in the establishment of departmental loading standards. Also, the effect of class size is not taken into account here. Preparation time should vary with class size probably with a relationship approximating that of an S curve, i.e., increasing slope of preparation time with class size to a point of inflection followed by a decreasing slope to a plateau. We are doing some research on this relationship now.



# UNIVERSITY OF TORONTO SURVEY OF ACADEMIC ACTIVITIES

			FULL DFESSOR	ŧ	ASSOCIATE PROFESSOR			ASSISTANT PROFESSOR		
NO. OF	RESPONDENTS		150			154		119		
UG SUB	JECT									
LOAD (F		CONT	PREP	NR	CONT	PREP	NR	CONT	PREP	NR
YEAR 1	LECTURE	0.30	0.95	0.34	0.77	2.27	U. 96	0.82	3.26	1.16
	LAB	0.13	N/A	N/A	<b>U. 34</b>		N/A	3.56		N/A
	TUTORIAL	0.19	N/A	N/A	0.16		N/A	0.27		N/A
									- <b></b>	•
YEAR 2	LECTURE	0.49	1.63	<b>0.71</b>	0.81		1.39	0.79		1.25
	LAB	0.39	N/A	N/A	0.55		N/A	1.08		N/A
	TUTOR IAL	C - 20	N/A	N/A	0.20	N/A	N/A	0.34	N/A	N/A
YEAR 3	LECTURE	0.68	2.40	1.14	G • 67	2.74	1.25	0.67	2.99	1.35
T L. MIN -	LAB	1.(0	N/A	N/A	Ú.68		N/A	°.97	N/A	N/A
	LAB	0.29	N/A	N/A	0.00		N/A			
	TOIDTINE	1.067	N/ n		7016	- IV/ M	IV/ M	<u> </u>	N/ M	N/A
YEAR 4	LECTURE	0.74	2.70	1.0C	û•65	3.36	1.21	0.39	2.59	C. 96
	LAB	0 • 60	N/A	N/A	C.86		N/A	0.74	N/A	N/A
	TUTORIAL	0.32	N/A	N/A	0.33		N/A	G-25	N/A	N/A
VEAR 5	LECTURE	0.01	0.05	0.64	0.00	0.00	0.00	0.01	0.00	U.GI.
	LAB	0.00	N/A	N/A	0.00		N/A	0.00	N/A	N/A
	TUTORIAL	0.00	N/A	N/A	0.00		N/A	0.00	N/A N/A	N/A
TOT UG	LECTURE	2.22	7. 73	3.23		11.24	4.82		12.11	4.72
	LAB	2.12	N/A	N/A	2.43		N/A	3.35		N/A
	TUTORIAL	1.00	N/A	N/A	0.82	N/A	N/A	1.24		N/A
GRAD SU	IBJECT									
LOAD (		CONT	PREP	NR	CONT	PREP	NR	CONT	PREP	NR
	LECTURE	2.13	6.32	2.40	1.42	4.69	1.61	1.52	6.36	1.98
	LAB	1.20	N/A	N/A	0.08		N/A	(i.17	N/A	N/A
	TUTURIAL	0.16	N/A	N/A	0.19	N/A	N/ A	0.23	N/A	N/A
RATIO- PREP/CO	INT HRS		1.79	)		2.03	}		2.01	
PREP/CO	- ·		1.95	<u> </u>						•
PREF / CU	NI nra		1070							

- 10 -

# <sup></sup>	Y OF TO		1966-67	,					FIG	URE 3		
ASSISTANT PROFESSOR		LECTURER			HEAD OF DEPARTMENT				UCIATE EAN			
	119			47			38			11		
CONT	PREP	NR	CONT	PREP	NR	CONT	PREP	NR	CONT	PREP	NR	
0.82	3.26	1.16	C. 84	5.65	2.57	0.30	0.35	C.63	L.44	1.94	¢.52	
0.56	N/A	N/A	C. 81	N/A	N/A	0.12	N/A	N/A	181	N/A	N/A	
0.27	N/A	N/A	C• 32	N/A	N/A	0.01	N/A	N/A	1.36	N/A	N/A	
D.79	3.27	1.25	0.67	4.88	2.07	Ü.45	1.05	0.60	<b>ن- 21</b>	48	0.41	
1.08	N/A	N/A	1.05	N/A	N/A	U.22	<u> N/A</u>	N/A	1.00	N/A	N/A	
0.34	N/A	N/A	(°• 52	N/A	N/A	83.0	N/A	N/A	<b>0.05</b>	N/A	N/A	
0.67	2.99	1.35	0.56	3.34	1.15	U.38	1.05	0.66	9.41	1.43	0.70	
¢.97	N/A	N/A	1.01	N/A	N/A	0.02	N/A	N/A	0.00	N/A	N/A	
C - 39	N/A	N/A	<u>c.13</u>	N/4	N/A	0.08	N/A	N/A	1.09	N/A	N/A	
0.39	2.59	C. 96	<b>6.32</b>	2.72	1.11	Ü-31	0.99	0.45	v.72	3.63	1.22	
0.74	N/A	N/A	C.38	N/A	N/A	9.26	N/A	N/A	i. 27	N/A	N/A	
6.25	N/A	N/A	(•35	N/A	N/A	l. •28	N/A 	N/A 	· 89	N/A 	N/A 	
0.01	0.00	U • G1.	0.00	0.00	0.00	Ů • U 2	<b>0.</b> 02	0.4.1	0.06	i.nt	C . C.	
C.CC	N/A	N/A	0.00	N/A	N/A	0.00	N/A	N/A	6.00	N/A	N/A	
0.00	N/A	N/A	0.00	N/4	N/A	0.00	N/A	N/A	L.00	N/A	A\n	
	12.11	4.72			6.90	1.46	3.48	2.35	1.78	7.69	2.84	
3.35 1.24	N/A N/A	N/A N/A	3. 25 1. 32	N/A N/A	N/A N/A	0.62 0.45	N/A N/A	N/A N/A	1.08	N/A N/A	N/A N/A	
CONT	PREP	NR	CONT	PREP	NR	CONT	PREP	NR	CONT	PREP	NR	
1.52	6.36	1. 98	0.69	2.41	0.65	1.57	4.16	1.37	1.64	5.65	1.23	
6.17	N/A	N/A	C. 70	N/A	N/A	C.25	N/A	N/A	0.00	N/A	N/A	
0.23	N/A	N/A	F • 23	N/A	N/A	©•€9	N/A	N/A	ŭ•©9	N/A	N/A	
	2.01			2.15	j.		1.73	ł		2.13	•	



Non-repetitive preparation time is the sum of block-times devoted to preparation for the course before the session begins, during Christmas vacation, and for preparation and evaluation of final examinations at end of session. By totaling these NR hours and multiplying the result by the number of weeks in the session we can get an estimate of the number of hours that are required by a professor for this kind of preparation activity; for full professors it is about 160 hours (the sum of 5.63 hours in NR multiplied by an assumed session length of 28 weeks.). It appears that full professors spend about four so-called normal work weeks in this kind of course preparation. Of course the same kind of analysis could be applied to the other ranks.

The second page of the report is illustrated by Figure 4. This page is arranged to display graduate supervision information and professional support activities for each academic rank. We can see the distribution of graduate supervision hours among the degree levels of the graduate students and how the distribution of time to the levels varies from full professor to lecturer. For example, full professors spend an average of 2.95 hours per week with Masters level students and 4.51 hours with the Ph.D. level. On the other hand assistant professors spend an average of 2.57 hours per week on the Master level and 1.31 hours on the Ph.D. level. The number of graduate students per professor seems to follow this same pattern also with full professors having an average of 4 students, associate professor about 3 and assistant professors 1.66. The same distribution among the levels seems to hold true also.



# UNIVERSITY OF TORONTO SURVEY OF ACADEMIC ACTIVITIES

		FULL PROFESSOR	ASSOCIATE PROFESSOR	ASSIST ANT PROFESSOR	LEC
GRADUATE SUPERVISI	ON				
REGULAR SESSION	DIPLOMA	0.20	0.07	C.16	C
SUPERVISION HRS	MASTERS	2.95	3.16	2.57	i
A VG. / WEE K	PHD	4.51	3.42	1.31	0
TOTAL		7.66	6.66	4.03	2
REGULAR SESSION	DIPLOMA	G.11	0.27	Q.U3	5
STUDENTS	MASTERS	1.72	1.46	1.09	υ
AVG./WEEK	PHD	2.16	1.23	0.54	7
TOTAL		3.99	2.97	1.66	O
AVG. HRS/STUDENT	DIPLOMA	1.92	Ů • 26	4.62	0
	MASTERS	1.71	2.17	2.35	4
	PHD	2.09	2.77	2.43	7
AVG. HRS./STUDENT	TOTAL	1.92	2.24	2.42	2
RATIO GRADUATE/UNDE	ERGRADUATE HRS	1.16	0.66	0.59	ŭ
		FULL	ASSOCIATE	ASSISTANT	LEC
		PROFESSOR	PROFESSOR	PROFESSOR	
PRUFESSIONAL SUPPOR	RT ACTIVITIES				
AVG COLLOQUIA HRS		1.30	1.30	1.51	
AVG READING + STUDY	/ HRS	5.46	6.02	5.25	8
	14 04			11	
AVG UNIVERSITY RESE	EARCH HRS	10.94	9.10	9.69	
AVG UNIVERSITY RESEAR		6.94	_		
	RCH_HRS		9.10 	9.69 6.47 le 77	

		FIGURE 4		
LECTURER	HEAD OF DEPARTMENT	ASSOCIATE DEAN	AVERAGE	
<b>0.20</b>	0.37	0.00		
0.16	3.39	1.74	2.92	
2.12	5.94	3.15	5.81	
5.34	0.39	Ü.00	0.18	
			1.37	
0.02	1.29	1.18	1.24	
0.79	3.05	3.36	2.78	
0.60	ü. 93	0.00	0.90	
7.65	2.63	1.47	2.36	
2.69	1.94	C.94	2.09	
ü.23	1.63	0.83	0.73	
LECTURER	HEAD OF	ASSOCIATE	AVERAGE	
	DEPARTMENT	DEAN		
0.95	C.89	1.33	1.29	
8.85	2.35	5.48	5.66	•
11.86	6.79	4.02	9.74	
4.03	3-10	4.17	6.39	
0.65	3.01	2.14	2.25	
0.71	1.58	ŭ•83	ü <b>.</b> 87	
	0.20 1.75 0.16  2.12  0.34 0.43  0.02  0.79  0.6C 4.11 7.65  2.69  0.23  LECTURER  0.95  8.85 11.86 4.03 0.65	LECTURER HEAD OF DEPARTMENT  0.20	LECTURER         HEAD OF DEPARTMENT         ASSOCIATE DEAN           0.20         0.37         0.00           1.75         2.18         1.41           0.16         3.39         1.74           2.12         5.94         3.15           5.34         0.39         0.00           0.43         1.37         2.18           0.02         1.29         1.18           0.79         3.05         3.36           0.60         0.93         0.00           4-11         1.60         0.64           7.65         2.63         1.47           2.69         1.94         0.94           0.23         1.60         0.83           LECTURER         HEAD OF ASSOCIATE DEPARTMENT         DEAN           0.95         0.89         1.33           8.85         2.35         5.48           11.86         6.79         4.02           4.03         3.10         4.17           0.65         3.01         2.14	Tecturer

Division of total supervision hours by the number of students yields average hours per student ranging from .94 hours per student for associate deans to 2.69 for lecturers. If these hours are properly weighted to yield an aggregate value it would approximate 2.1 hours per week per student. Again, if we may hypothesize for discussion purposes, that the average is satisfactory as a loading standard, we can establish an equivalence relationship of graduate students to class contact hours in the ratio of 2.1/3 with the denominator representing a total time of preparation and contact for a class hour. For an example of how this might be used assume that a class load of 9 hours per week is considered standard. Assume also that it is desired to assign a professor 6 class hours and enough graduate students that he would have 9 "equivalent" class hours. Given this standard and the actual class hour load the standard graduate student assignment would be  $\frac{3(9-6)}{2.1}$  or about 4 graduate students. Further, the total time for class contact, preparation for class, and graduate supervision would be 3(6)+2.1(4.1)=27 hours. Assuming this average professor had other duties of a research and administrative nature that approximated the pattern of Figure 1, this 27 hours would represent only 46% of his work week. total sessional work week would approximate 59 hours!

If we refer to Figure 1 again for another illustration, it shows that in the aggregate there is little difference between the supervision time for Masters level vs Ph.D. level i.e., about 4% of the average professors' time is allocated to supervision



of an average of 1.37 Masters level students whereas 5% of the time is associated with an average of 1.24 Ph.D. level students. But of course this will vary among the academic ranks and from division to division. For example, one academic division shows close to a 2/1 ratio of time devoted to Ph.D. vs Masters students. This would have to be reflected in the loading standard for this particular division, ie., there would be separate class hour equivalents for the two graduate levels.

Ratios of graduate to undergraduate time are computed for all ranks with the average for the university sample showing as 0.73 on Figure 4. This is different than the 0.84 that we inferred from Figure 1 because for this report we excluded almost 200 respondents most of which were cross-appointed and part-time. It would appear from this difference between 0.84 and 0.73 that a greater portion of the time of part-time and cross-appointees is allocated to graduate vs undergraduate than the full-time members of staff included in this sample.

The next part of the report was designed to collect professional support hours and non-academic hours into two groupings so that they could be compared to the time allocated to the group of instruction-related activities. The hours devoted to each of the components within the groupings are shown for all academic ranks and aggregated in Figure 5 to show percentages of time associated with the three groups for all academic ranks. It is worth noting that the percentage of time allocated to instruction-related activities increases from full professor to assistant professor and lecturer as we would have expected and that a smaller percentage of the time of department



## UNIVERSITY OF TORONTO SURVEY OF ACADEMIC ACTIVITIES 1

·	FULL PROFESSOR	ASSOCIATE PROFESSOR	ASSIST ANT PROFESSOR	LEC
ADMINISTRATION + STUDENT SERVICES	S			
AVG FACULTY ADMINISTRATION	1.91	1.75	3.03	2
AVG DEPARTMENT ADMINISTRATION	6.56	4.04	3.63	1
AVG SGS ADMINISTRATION	U. 94	0.71	0.27	C
AVG STUDENT ADVISING HRS	2.10	1.44	2-12	
AVG UNIVERSITY ADMINISTRATION	ܕ46	0.33	0.30	u
AVG STUDENT SERVICES HRS	0.22	0.77	0.33	2
OTHER	<b></b>	0.93	6.19	
P/C CONTACT HRS.  P/C PREPARATION HRS.	16.14 18.18	13.74 21.82	12.52 25.18	11 25
P/C INSTRUCTIONAL RELATED HRS.	45.51	50.47	52.33	51
P/C PROFESSIONAL SUPPORT HRS.	38.16	35.89	34.23	37
P/C ADMINISTRATIVE HRS.	16.33	13.64	13.44	11
POOLED REG SESSION HRS/WEEK	77.32	73.00	73.38	71
HRS ATTRIBUTABLE TO SUMMER STUDY	17.31	16.11	16.52	10
REGULAR SESSION WORK WEEK	60 <b>.</b> 61	56.89	56.86	54

ERIC

heads and associate deans is devoted to this activity. Correspondingly, professional support hours decrease from full professor to assistant professor and lecturer, as does administrative time. We would expect that heads of departments and associate deans would have high administrative loads and correspondingly less professional support and instruction time. It is also interesting to note that academic administrators keep their hands in, so to speak, and are not divorcing thenselves completely from the classroom and contact with students. With the increasing pressures for allocation of the time of academic administrators to purely administrative duties it is encouraging to see that they are not yielding completely to these pressures thereby losing all contact with students. Figure 6 shows the information on these group percentages expressed graphically.

At the bottom of Figure 5 we show breakouts of time for pooled regular session hours per week, hours attributable to summer study, and the regular session work week. If we total all the weekly hours for each rank we arrive at the first of these totals. But, these are pooled hours which include hours of the type that occur extra-session including such non-recurring activities as reading and study, preparation for the regular session course at the end of the summer, and the weekly recurring research hours beyond the regular session length. When we subtract out these hours attributable to summer study we arrive at close to a 60 hour work week for the regular session. And we believe this to be a fairly representative value. It appears that the average work week of the academic ranges from about 55 to 63 hours during the



LECTURER DEPARTMENT ASSOCIATE PROFESSOR ASSOCIATE ASSISTANT PROFESSOR PROFESSOR PROFESSIONAL **INSTRUCTION ADMINISTRATION** DEAN HEAD -02 40 75--69 **60** 55-50 -54 33-30 20 90 85--08 -26 ACTIVITY TIME PERCENTAGE

Figure

TIME

DISTRIBUTION OF ACTIVITY

BY ACADEMIC RANK

regular session and that if he is not on the campus during the summer months, his average summer work week ranges from 16 to 23 hours. His time during the summer would probably be distributed bimodally with the peaks occurring immediately prior to and at the end of the regular session.

Figure 7 displays information on the professors who supervise graduate students during the summer session and it completes the computer output report with estimates of the average annual work week. Of the sample of 519 there were 183 who reported summer activity in graduate supervision and their results are shown on Figure 7. (Undergraduate instruction is carried on in the Division of Extension which was not included in the analysis). An average summer session work week is calculated as the sum of hours supervising graduate students, in reading and study, in the conduct of research, and devoted to non-recurring activities outside the regular session length. The work week estimates for the regular and summer sessions are then weighted appropriately for session lengths and sample sizes to yield estimated annual work weeks for each academic rank. These estimates automatically assume a 48 week year with one month vacation. For example, we arrive at an average annual work week for full professors as follows:

## 77.37 hours x 28 weeks x 150 professors 48 weeks x 150 professors

- + 41.53 hours x 9 weeks x 61 professors
  48 weeks x 150 professors
- = 48.27 hours



# UNIVERSITY OF TORONTO SURVEY OF ACADEMIC ACTIVITIES

		FULL PROFESSOR	ASSOCIATE PROFESSOR	ASSIST ANT PROFESSOR	LEC
NO. OF RESPONDENTS		61	65	41	
SUMMER SESSION	D IPLOMA	0.39	6.72	C • O ɔ	0
SUPERVISION HRS	MASTERS	6. 97	8.46	10.80	Ü
AVG./WEEK	PHD	11.23	12.54	7.48	Ŭ
TOTAL		18.59	27.72	18.28	0
SUMMER SESSION	DIPLOMA	V. G7	0.46	0.00	C
STUDENTS	MASTERS	1.84	1.78	1.90	Ğ
A VG. / WEE K	PHD	2.89	2.08	1.00	0
TOTAL		4.79	4.32	2.90	ŭ
AVG. HRS/STUDENT	DIPLOMA	5.94	14.56	<b>6.0</b> 0	C
	MASTERS	3.80	4.74	5.68	<u> </u>
•	PHD	3.89	6.04	7.48	ŏ
AVG. HRS./STUDENT	TUTAL	3.88	6.41	6.30	C
AVG SUMMER READING  AVG SUMMER UNIVERSI	TY RESEARCH	9.09	5.96 6.52	<b>4.55</b> <b>8.76</b>	0
AVG SUMMER ASSISTED	RESEARCH	7.00	10.48	6.86	<u> </u>
AVERAGE SUMMER SESS	ION WORK WEE	K 41.53	50.67	38.46	Ç
AVG ANNUAL WORK WEE	K	48.27	46.59	45.29	41
THE AVERAGE NUMBER	DF YEARS	UN FACULTY	9 UNIVER	SITY TEACHING	12

	RONTO IES 1966-67	,	FIGURE 7		
T ANT ES SOR	LECTUPER	HEAD OF DEPARTMENT	ASSOCIATE DEAN	AVERAGE	
	0	11	5		
90	0.00	0.00	0.00	2.52	•
00 0 8	U.00	5.40	4.44	8.20	
<u>8</u>	Ŭ.ÜĿ	11.34	6.51	10.73	
28	0.00	16.75	10.96	21.44	
00	<b>c.</b> 60	0.00	0.00	0.19	
00 90 00	0.00	1.45	3.00	1.84	
70	0.00	2.64	1.60	2.13	
90	0.00	4.09	4.60	4.15	
0	0.00	0.00	0.60	13.54	
58	0.00	3.72	1.48	4.45	
58 48	0.00	4.30	4.07	5.05	
30	C.OC	4.09	2.38	5. 16	
				•	
55	0.00	6.57	7.22	6.61	
76	0.00	8.72	1.85	7.88	
36	0.00	7.22	8.23	8. 25	
16	0.00	39.25	28.25	43.59	
29	41.85	52.02	46.74	46. 75	
ACHI NG	12				
	<u></u>				

and the work weeks for the other academic ranks are calculated in similar fashion. Figure 8 is a graph which compares regular session and annual average work weeks within each rank and among the ranks. Again, as we would expect, the higher ranks of professors, including department chairmen and associate deans, have longer work weeks than the lower ranks. It should be emphasized that these are average figures. Some professors spend minimal time in the summer on university work-related activities - others spend a great deal of time in the summer supervising graduate students and performing necessary administrative duties. The net overall effect is that the professor has an average annual work week which is in excess of the norm for skilled technicians in industry and which probably approaches the work week of the average business executive at a comparable hierarchical level.



B. L. Hansen,S. Sandler,September, 1967.

